

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/001889

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 B25B23/04 B25B23/06 B25B23/10		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7 B25B B23P		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category.*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 584 221 A (PETRANTONI JOSEPH) 17 December 1996 (1996-12-17)  abstract; claims; figures 2,7,15	1-3,5,7, 9,10,12, 14,15,17
A	WO 00/78509 A (BABIJ ALEX JR) 28 December 2000 (2000-12-28) page 7, line 23 - page 8, line 27; figures 6-8,16	1-3,14, 17
A	US 3 891 014 A (GUNN DAVID T) 24 June 1975 (1975-06-24) abstract; figures	1,2,5,7, 14,15,17
A	DE 42 01 143 A (IMT INGENIEURGEMEINSCHAFT FUER) 22 July 1993 (1993-07-22) abstract; figures	1
-/--		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		
<input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *Z* document member of the same patent family		
Date of the actual completion of the international search  13 July 2004		Date of mailing of the international search report  21/07/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer  Majerus, H

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International Application No  
PCT/G82004/001889

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 144 870 A (NICK EDWARD V) 8 September 1992 (1992-09-08) column 16, line 52 - column 17, line 16; figures 20-24	1
A	EP 0 593 970 A (TOYO TECHNO CO LTD) 27 April 1994 (1994-04-27) figures 8-15	1

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 16  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box II.2

Claims Nos.: 16

Claim 16 does not contain any technical feature, which makes the claim not clear (Article 6 PCT). Furthermore the claim tries to define the subject matter by reference to the description (Article 6 PCT; Rule 6.2 (a)).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/001889

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5584221	A	17-12-1996	NONE		
WO 0078509	A	28-12-2000	WO	0078509 A1	28-12-2000
			AU	5200400 A	09-01-2001
US 3891014	A	24-06-1975	NONE		
DE 4201143	A	22-07-1993	WO	9421429 A1	29-09-1994
			DE	4201143 A1	22-07-1993
US 5144870	A	08-09-1992	NONE		
EP 0593970	A	27-04-1994	JP	6057563 U	09-08-1994
			JP	2083235 C	23-08-1996
			JP	6126646 A	10-05-1994
			JP	7115306 B	13-12-1995
			DE	69306906 D1	06-02-1997
			DE	69306906 T2	24-07-1997
			EP	0593970 A1	27-04-1994
			HK	1006551 A1	05-03-1999
			US	5341706 A	30-08-1994